

REMARKS

Applicants wish to thank the Examiner for considering the present application. In the Office Action dated July 28, 2004, claims 1-30 are pending in the application. Applicants respectfully request the Examiner for reconsideration.

The disclosure stands objected to for informalities. A substitute specification has been submitted herewith using a smaller font size. It appears that the font size was changed during electronic filing of the application at the United States Patent Office. Applicants have provided a substitute specification. No new matter has been added.

Claim 30 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants have amended claim 30. These amendments are believed to overcome this rejection.

Claims 1-4, 11-27, 29, and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Deng* (6,292,094) or *Gerum* (5,747,683) in view of *Mizusawa* (US2002/0145663). Applicants respectfully traverse.

Claims 1, 12 and 21 are independent claims. Each of these independent claims has a common theme. Referring specifically to claim 1, a sensor sensing a current position of the trailer relative to the vehicle is provided as the first step. Determining a steering wheel angle and determining a predicted position of the trailer based upon the current position and the steering wheel angle is set forth. Also, displaying within the vehicle the current position and the predicted position of the trailer relative to the vehicle is set forth. It should be noted that Fig. 20 illustrates one example of a display. The initial position I is illustrated with future positions x_1 , x_2 and x_3 . As recited in claim 1, only one future or predicted position is illustrated. It should also be noted that a predicted position is a position other than the current position. That is, it is a predicted future position.

Both the *Deng* reference and the *Gerum* reference are believed to provide only a current position of the vehicle and trailer. The Examiner points to Cols. 2 and 3 of the *Deng* reference for a trailer system that senses a current position (or hitch angle) of a trailer relative to a vehicle and determines and uses a steering wheel angle to determine a predicted position of the trailer position based on the current position thereof and the steering wheel angle. From Cols. 2 and 3 it is clear that the *Deng* reference looks at a maximum permissible hitch angle. This is set forth in Col. 2, lines 42-63. This passage describes the hitch angle reported to the

controller by the respective sensors. The controller system then performs calculations to determine whether the current hitch angle exceeds a maximum permissible hitch angle that can be overcome while continuing to back up utilizing the full capability of the front and rear steering. Based upon a hitch angle threshold, the vehicle is controlled. Applicants respectfully submit that only a threshold is described and not a current position and a future position based upon a current position and the steering wheel angle.

The *Gerum* reference sets forth a drive stability enhancement of multi-unit vehicles. The Examiner points to claims 1-7 of the *Gerum* reference for determining a predicted position of the trailer based upon the current position and the steering wheel angle. Applicants respectfully believe that the *Gerum* reference also only sets forth a current position based upon modeling as set forth in the claims. The model uses the hitch angle, the hitch angle rate, and measured signals from sensors on the towing vehicle. Based upon the model, a control scheme may be implemented. As claim 5 recites, possible jackknifing of the combined vehicle may be detected. Applicants can find no teaching or suggestion that a predicted or future position of the trailer based upon the current position and the steering wheel angle is set forth.

The *Mizusawa* reference is set forth for teaching a camera and a display. Claim 1 of the present application recites displaying within the vehicle the current position and predicted position of the trailer relative to the vehicle. Thus, both the current and predicted positions are set forth on the display. The *Mizusawa* reference describes a system for hitch location and not a future and current position of a trailer. Applicants can find no teaching or suggestion in the reference for a predicted position. Applicants therefore respectfully request the Examiner to reconsider the reference since a predicted position is not taught or suggested in either of the three references. It would also not be evident to those skilled in the art that a modification of either of the three references would produce a predicted position. Each of the references are set forth in determining a present position of the vehicle.

Claims 2-4 and 11 are further limitations of claim 1 and should also be allowable for the same reasons set forth above.

Claim 12 is similar to claim 1 in that a predicted position of the trailer based upon the current position and steering wheel angle is set forth. Claim 12 is believed to be allowable for the same reasons set forth above.

Claims 13-20 are further limitations of claim 12 and are believed to be allowable for the same reasons set forth above.

Claim 21 is a system for a vehicle coupled to a trailer that includes a position sensor, a display and a controller coupled to the trailer position signal display. A controller

displays a predicted path of the trailer in response to the position signal. As mentioned above, no predicted path is taught or suggested in either of the three references. Applicants therefore respectfully request the Examiner to reconsider claim 21.

Claims 22-27, 29, and 30 are further limitations on claim 1 and are believed to be allowable for the same reasons set forth above.

Claims 5-10 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Gerum* or *Deng* in view of *Mizusawa* and in further view of *Hrazdera* (6,704,637). Applicants respectfully traverse.

The *Gerum*, *Deng* and *Mizusawa* references fail to teach or suggest the predicting positions. Claims 5-10 and 18 are further limitations of their independent claims. Applicants have reviewed Col. 4 of the *Hrazdera* reference and can find no teaching or suggestion for a predicted path. The *Hrazdera* reference is set forth for teaching brake steering. However, this reference also does not teach or suggest the use of brake steering and predicting a path for a trailer. Applicants therefore respectfully request the Examiner for reconsideration of this rejection as well.

Claim 28 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Deng* or *Gerum* in further view of *Yoshioka* (5,461,357). The *Yoshioka* reference also does not teach or suggest detecting a predicted path. Applicants therefore respectfully request the Examiner for reconsideration of this rejection as well.

In light of the above remarks, applicants submit that all objections are now overcome. Applicants respectfully submit that the application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments the Examiner is respectfully requested to call the undersigned attorney. Please charge any fees required in the filing of this amendment to Deposit Account 06-1510.

Respectfully submitted,



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